

Remarks/Arguments

Claims 7-28 remain in this application. Claims 10-13, 16-18, 21-22 and 27-28 have been withdrawn by the examiner. Claims 20 and 23 have been amended.

Claim 7-9, 14-15 and 23-26 stand rejected as being unpatentable over CN 10694332. The '432 reference discloses binders for molds and cores wherein the binders include petroleum pitch and vegetable oil residue. Applicants respectfully submit that the '432 reference fails to disclose or suggest a method of protecting foundry molds by applying to mold pattern surfaces a pattern coating composition comprising vegetable oil and a viscosity reducer. The composition disclosed in the '432 reference, by contrast, is a binder and not a release composition. Even though the binder compositions disclosed in the '432 reference are described as improving the separation of the cast part from the sand mold, this is insufficient to render the claims of the present application, directed to a method of protecting foundry molds by applying a pattern coating composition, obvious. Release compositions and binders are distinct and serve different purposes in the molding operation. A binder is defined as "any material in a sand mixture that, by means of adhesion and/or cohesion, bonds sand grains to a degree suitable for metal casting requirements." *Green Sand Additives*, American Foundrymen's Society, Inc. (2000). By contrast, a release composition or release agent refers to the definition for a parting compound which is "a material dusted, brushed or sprayed on patterns or mold halves to prevent adherence of sand and to promote easy separation of cope and drag parting surfaces when cope is lifted from drag." *Id.* Furthermore, applicants' claims are clearly directed to the methods for facilitating release of molding sand from mold pattern surfaces by applying a pattern coating composition to the mold pattern surfaces. By contrast, the binder disclosed in the '432 reference is not applied to the mold pattern surfaces as specifically set forth in the claims currently pending.

One of skill in the art would not be motivated to look to binder compositions for formulating pattern coating compositions. Furthermore, applicants respectfully submit that the broad disclosure of petroleum pitch fails to render obvious claims 7-9 which are specifically

directed to mineral seal oil. For at least these reasons, applicants submit that the rejection under Section 103(a) is improper and request that the rejection be withdrawn.

Claims 1-6, which were previously withdrawn, have been cancelled. Applicants retain the right to present claims 1-6 in a divisional application.

Withdrawn claims 10-13, 16-18, 21-22 and 27-28 remain in this application. Independent claims 7 and 23 are Markush-type claims in that the claims refer to a viscosity reducer selected from the group consisting of oil, alcohol and mixtures thereof. In accordance with MPEP §803.02, restriction should not have been required with respect to the currently pending claims because the members of the Markush group are sufficiently few that examination of the entire claim could be made without serious burden. Nonetheless, since restriction was required in the present case, and no prior art has been found, that anticipates or renders obvious the elected species, the search of the Markush-type claims should be extended. Furthermore, in accordance with MPEP §809.02(c), "when all claims to each of the additional species are embraced by an allowable generic claim as provided by 37 C.F.R. 1.141, applicant must be advised of the allowable generic claim and that claims drawn to the nonelected species are no longer withdrawn since they are fully embraced by the allowed generic claim." Applicants respectfully submit that generic claims 7 and 23 are in condition for allowance and embrace all claims to each of the additional species which were previously withdrawn and still pending. Therefore, applicants respectfully request that claims drawn to the nonelected species should no longer be withdrawn and should be indicated as being allowable.

Claim 23 has been amended to clearly indicate that the viscosity reducer can contain a combination of petroleum oil and alcohol. Support for claim 23 as amended can be found in the application as originally filed on page 2, lines 15-19. No new matter has been included by the above amendment and the amendment simply represents the incorporation of subject matter already pending in the present application. Applicants submit that the amendment presents the rejected claim in better form for consideration and appeal and request that the amendment be entered.

Amendment in Response to Final Office action mailed April 15, 2004

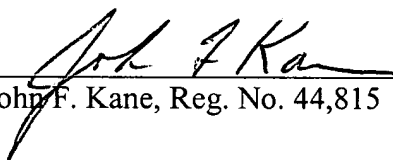
Attorney Docket No. 024295-261

Serial No. 10/072,638

Page 7 of 7

In view of the foregoing response, it is respectfully submitted that the claims now pending are patentably distinct from the references cited and are in condition for allowance. Reconsideration and withdrawal of the rejections of record is respectfully requested. If the examiner wishes to discuss any aspect of this response, please contact the undersigned at the telephone number indicated below.

Respectfully submitted,



John F. Kane, Reg. No. 44,815

THOMPSON HINE LLP
2000 Courthouse Plaza, N.E.
P.O. Box 8801
Dayton, Ohio 45401-8801
937-443-6816